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=> s paroxetine(1)amorphous
          1375 PAROXETINE
        190425 AMORPHOUS
             8 PAROXETINE (L) AMORPHOUS
=> d bib 1-8
L1
     ANSWER 1 OF 8 CAPLUS COPYRIGHT 2001 ACS
AN
     2001:319726 CAPLUS
DN
     134:331635
     Amorphous paroxetine composition
ΤI
     Ronsen, Bruce; Sadhale, Yogesh D.; El-Rashidy, Ragab
IN
     Pentech Pharmaceuticals, Inc., USA
PA
     PCT Int. Appl., 25 pp.
SO
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                                           WO 2000-US29686 20001027
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PRAI US 1999-428812
                      Α
                            19991028
RE.CNT 2
RF.
(1) Benneker; US 5874447 A 1999 CAPLUS
(2) Krape; US 5955475 A 1999 CAPLUS
     ANSWER 2 OF 8 CAPLUS COPYRIGHT 2001 ACS
L1
     2000:841959 CAPLUS
AN
DN
     134:21450
     A pharmaceutical composition containing an active agent in solid
ΤI
amorphous
     form
     Chen, Jinling; Vilkov, Zalman
IN
     Purepac Pharmaceutical Co., USA
PA
     PCT Int. Appl., 38 pp.
so
     CODEN: PIXXD2
DT
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LA
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     WO 2000071098
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             LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
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             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            19990524
PRAI US 1999-317448
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RE.CNT 5
(1) Ares; US 5399584 A 1995 CAPLUS
(2) Busetti; US 5788987 A 1998 CAPLUS
(3) Carli; US 5275824 A 1994 CAPLUS
(4) Kuhrts; US 5993860 A 1999 CAPLUS
(5) Perry; US 6066643 A 2000 CAPLUS
     ANSWER 3 OF 8 CAPLUS COPYRIGHT 2001 ACS
L1
     2000:335408 CAPLUS
AN
     132:321806
DN
     Effect on particle properties of paroxetine hydrochloride obtained by
TI
     precipitation from a supercritical or near-critical solution
IN
     Camburn, Ian David; Merrifield, David Roy; Valder, Christopher Edmund
PA
     SmithKline Beecham PLC, UK
     PCT Int. Appl., 13 pp.
SO
     CODEN: PIXXD2
DT
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PRAI GB 1998-24298
                       Α
                             19981105
     WO 1999-GB3664
                       W
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RE.CNT 5
(1) Asahi Glass Co Ltd; EP 0810224 A 1997 CAPLUS
(2) Beecham Group Plc; EP 0223403 A 1987 CAPLUS
(3) Smithkline Beecham Plc; WO 9624595 A 1996 CAPLUS
(4) Univ Bradford; WO 9501221 A 1995
(5) Ward, N; WO 9831365 A 1998 CAPLUS
L1
     ANSWER 4 OF 8 CAPLUS COPYRIGHT 2001 ACS
     1999:722902 CAPLUS
AN
DN
     131:327573
ΤI
     Aqueous process for manufacturing paroxetine solid dispersions
     Hein, William A., II; Chang, Sou-Chan; Kao, Huai-Hung D.
IN
PA
     Endo Pharmaceuticals Inc., USA
     PCT Int. Appl., 37 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
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            MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
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                    B1 20010102 US 1998-74355
                                                          19980507
    US 6168805
                                                          19990505
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    AU 9937876
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                           19991123
                                        EP 1999-920358
                                                          19990505
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(1) Asahi Glass Co Ltd; EP 0810224 A 1997 CAPLUS
(2) Hein, W; WO 9900131 A 1999 CAPLUS
(3) Howard, H; US 5597826 A 1997 CAPLUS
(4) Pathak, R; WO 9516448 A 1995 CAPLUS
(5) Ward, N; WO 9831365 A 1998 CAPLUS
    ANSWER 5 OF 8 CAPLUS COPYRIGHT 2001 ACS
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    1999:233798 CAPLUS
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    130:272021
ΤI
    Amorphous paroxetine composition
    Ronsen, Bruce; El-Rashidy, Ragab
IN
PA
    Pentech Pharmaceuticals, Inc., USA
SO
    PCT Int. Appl., 33 pp.
    CODEN: PIXXD2
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            IE, FI
PRAI US 1997-940058
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    WO 1998-US20435
                    W
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RE.CNT 17
RE
(1) Barnes; US 4721723 A 1988 CAPLUS
(2) Byron; 1996, 8, P687 CAPLUS
(3) Byron; Drug Delivery V program Proc 1996, P103 CAPLUS
(4) G D Searle & Co; EP 0212641 A2 1987 CAPLUS
(5) Kai; Chem Pharm Bull 1996, V44(3), P568 CAPLUS
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ANSWER 6 OF 8 CAPLUS COPYRIGHT 2001 ACS
L1
    1998:509101 CAPLUS
AN
    129:127171
DN
    Preparation of free-flowing and easily soluble paroxetine
ΤI
    Jacewicz, Victor Witold; Ward, Neal
IN
    Smithkline Beecham PLC, UK
PΑ
SO
    PCT Int. Appl., 11 pp.
    CODEN: PIXXD2
    Patent
DT
    English
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FAN.CNT 1
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            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
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    GB 1997-14873
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    WO 1998-GB81
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    ANSWER 7 OF 8 CAPLUS COPYRIGHT 2001 ACS
ΑN
    1997:783663 CAPLUS
DN
    128:53203
    Method of producing amorphous paroxetine hydrochloride
ТT
IN
    Wang, Shu-zhong; Okazoe, Takashi; Matsumura, Yasushi
PA
    Asahi Glass Co., Ltd., Japan
SO
    Eur. Pat. Appl., 6 pp.
    CODEN: EPXXDW
DT
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LΑ
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FAN.CNT 1
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                    A1 19971203 EP 1997-108713 19970530
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ANSWER 8 OF 8 CAPLUS COPYRIGHT 2001 ACS
L1
    1997:640249 CAPLUS
AN
    127:298742
DN
    Amorphous paroxetine composition
ΤI
    Ronsen, Bruce; El-Rashidy, Ragab
IN
    Pentech Pharmaceuticals, Inc., USA
PΑ
so
    U.S., 8 pp.
    CODEN: USXXAM
    Patent
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LΑ
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    US 5672612
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                    A1 19980312
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    WO 9809963
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    GB 2331519
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    GB 2331519
                    B2 20000119
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                   A1 19990728
    EP 931080
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    JP 2001500129
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                    Т2
PRAI US 1996-708802 A 19960909
WO 1997-US15763 W 19970908
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ANSWER 1 OF 11 CAPLUS COPYRIGHT 2001 ACS
L5
     2001:300712
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AN
     134:311117
DN
    Novel processes for synthesis of paroxetine
TI
     Crowe, David; Ward, Neal; Wells, Andrew Stephen
IN
     Smithkline Beecham Plc, UK
PA
     PCT Int. Appl., 55 pp.
so
     CODEN: PIXXD2
     Patent
DT
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FAN.CNT 2
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                            19991020
PRAI GB 1999-24882
                     Α
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OS
GΙ
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AB Three process schemes for a complete route to paroxetine (I) starting from

arecoline are disclosed.

RE.CNT 9

RE

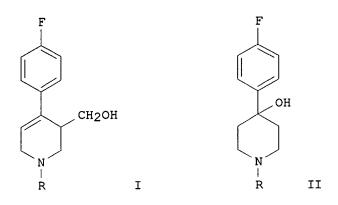
- (1) Beecham Group Plc; EP 0219934 A 1987 CAPLUS
- (2) Beecham Group Plc; EP 0223334 A 1987 CAPLUS

Ι

- (3) Christensen, J; US 4007196 A 1977 CAPLUS
- (4) Engelstoft, M; ACTA CHEMICA SCANDINAVICA 1996, V50(2), P164 CAPLUS
- (5) Kell, C; WO 9802556 A 1998 CAPLUS
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ANSWER 2 OF 11 CAPLUS COPYRIGHT 2001 ACS
    2001:300711 CAPLUS
AN
    134:311116
DN
    Process for the preparation of paroxetine
ΤI
     Borrett, Gary Thomas; Crowe, David; Ward, Neal; Wells, Andrew Stephen
IN
     Smithkline Beecham P.L.C., UK
PA
SO
     PCT Int. Appl., 47 pp.
    CODEN: PIXXD2
    Patent
DT
    English
LΑ
FAN.CNT 1
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    WO 2001029031
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            YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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            CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                           19991020
PRAI GB 1999-24855
                      Α
    MARPAT 134:311116
os
    Three process schemes for a complete route to paroxetine from a pyridine
AΒ
     ester are disclosed. E.g., enzymic resoln. of trans-1-methyl-3-
     carbomethoxy-4-(4'-fluorophenyl)piperidine is described.
RE.CNT 5
(1) Beecham Group Plc; EP 0219934 A 1987 CAPLUS
(2) Beecham Group Plc; EP 0223334 A 1987 CAPLUS
(3) Beecham Group Plc; EP 0300617 A 1989 CAPLUS
(4) Christensen, J; US 4007196 A 1977 CAPLUS
(5) Engelstoft, M; ACTA CHEMICA SCANDINAVICA 1996, V50(2), P164 CAPLUS
    ANSWER 3 OF 11 CAPLUS COPYRIGHT 2001 ACS
L5
    2001:265386 CAPLUS
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    134:295740
DN
     Process for the preparation of paroxetine intermediate
TΙ
    Crowe, David; Ward, Neal
ΙN
     Smithkline Beecham P.L.C., UK
PA
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    PCT Int. Appl., 13 pp.
     CODEN: PIXXD2
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             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
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CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG PRAI GB 1999-23539 A 19991005 OS MARPAT 134:295740 GI



AB The title compds. [I; R = (un) substituted Ph] which are valuable intermediates in the prepn. of paroxetine (for treating depression, obsessive disorder and panic) were prepd. by reacting the compd. II with formaldehyde in an acidic medium at elevated temp.

RE.CNT 4

RE

- (1) Borza, I; WO 9801424 A 1998 CAPLUS
- (2) Christensen, J; US 4007196 A 1977 CAPLUS
- (3) Johnson, A; US 5371092 A 1994
- (4) Ziering; J ORG CHEM 1947, V12, P894 CAPLUS
- L5 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2001 ACS
- AN 2001:137210 CAPLUS
- DN 134:198046
- TI Preparation of paroxetine free base
- IN Craig, Andrew Simon; Jones, David Alan; O'Keeffe, Deirdre; Ward, Neal
- PA SmithKline Beecham P.L.C., UK
- SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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APPLICATION NO. DATE
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                                       WO 2000-GB3107 20000811
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                                  AU 1999-48821 19990920
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19990812
PRAI GB 1999-19052
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     Processes are disclosed for prepg. paroxetine free base in substantially
     pure form. The free base may be combined with a pharmaceutically
     acceptable diluent and/or converted in-situ to a pharmaceutically
     acceptable salt. N-phenoxycarbonyl paroxetine was refluxed with
potassium
     hydroxide in toluene to obtain paroxetine base which was sepd. and
     purified.
RE.CNT 6
RE
(1) Beecham Group Plc; EP 0223403 A 1987 CAPLUS
(2) Borza, I; WO 9801424 A 1998 CAPLUS
(3) Christensen, J; US 4007196 A 1977 CAPLUS
(4) Synthon, B; WO 9856787 A 1998 CAPLUS
(5) Ward Neal; WO 9831365 A 1998 CAPLUS
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     ANSWER 5 OF 11 CAPLUS COPYRIGHT 2001 ACS
T.5
     2000:911056 CAPLUS
AN
     134:76385
DN
     Pharmaceutical compositions containing water-soluble salts of paroxetine
ΤI
     Al-Ghazawi, Ahmad Khalaf Al-Deeb; Elder, David Philip; Meneaud, Padma
IN
     SmithKline Beecham P.L.C., UK
PA
     PCT Int. Appl., 18 pp.
SO
     CODEN: PIXXD2
DT
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     English
LΑ
FAN.CNT 2
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                      KIND DATE
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                                      WO 2000-EP5638 20000616
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             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI GB 1999-14601
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                       Α
     GB 1999-27498
                            19991119
                       Α
     GB 1999-28693
                      Α
                            19991203
AΒ
     Pharmaceutical compns. comprising water sol. salts of paroxetine
     such as paroxetine methanesulfonate are described.
     ANSWER 6 OF 11 CAPLUS COPYRIGHT 2001 ACS
L5
     2000:509013 CAPLUS
AN
DN
     133:94594
     Pharmaceutical compositions containing paroxetine
TI
     methanesulfonate
     Ahmed, Khalaf Al-Deeb Al-Ghazaw
IN
     SmithKline Beecham P.L.C., UK
PA
     Patentschrift (Switz.), 7 pp.
SO
     CODEN: SWXXAS
DT
     Patent
     French
LΑ
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                       Α
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                             20001228
                             20001228
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             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
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                        A1
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     FR 2795327
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     EP 1064936
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                             20010104
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PRAI GB 1999-14601
                        Α
     GB 1999-14709
                             19990623
                       Α
                             19991119
     GB 1999-27501
                       Α
     Pharmaceutical compns. contg. paroxetine
AΒ
     methanesulfonate (I) and a hydrophilic or hydrosol. dilg. agent
     such as carbohydrates is disclosed. A tablet contained I 7.38, calcium
     dihydrogen phosphate 89.92, sodium starch glycolate 1.70, and magnesium
     stearate 1.00%.
     ANSWER 7 OF 11 CAPLUS COPYRIGHT 2001 ACS
T.5
     2000:34594 CAPLUS
ΑN
     132:78472
DN
     Preparation and formulation of paroxetine
ŢΙ
     methanesulfonate
     Craig, Andrew Simon; Jones, David Alan; O'Keeffe, Deirdre; Ward, Neal
IN
     SmithKline Beecham PLC, UK
PA
     Eur. Pat. Appl., 27 pp.
SO
     CODEN: EPXXDW
DT
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     English
LA
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                                                               DATE
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     CH 689805
                       Α
     NL 1011874
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                                                               19990423
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                         A1
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                         Ε
                                               BE 1999-293
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                         Т3
                                               GB 2000-20002648719990423
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                        A1
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                        A1
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                              19990923
     NL 1012271
                         C2
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              MD, RU, TJ, TM
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PRAI GB 1998-14316
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                        W
     WO 1999-EP4543
                        W
                              19990630
     The title compd. was prepd. in several crystn. polymorphs and was used to
AB
     prep. paroxetine hydrochloride.
RE.CNT 32
RE
(1) Anon; EP 0188081 A 1986 CAPLUS
(4) Anon; JP 61148121 A 1986 CAPLUS
(6) Anon; EP 0223403 A 1987 CAPLUS
(8) Anon; JP 62129280 A 1987 CAPLUS
(11) Anon; US 4721723 A 1988 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 8 OF 11 CAPLUS COPYRIGHT 2001 ACS
L5
     1999:613898 CAPLUS
AN
DN
     131:233586
     Crystalline form of paroxetine
ΤI
     Craig, Andrew Simon; Ward, Neal; McIlwaine, Wilson
IN
     Smithkline Beecham PLC, UK
PA
     PCT Int. Appl., 18 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                                              APPLICATION NO.
                       KIND DATE
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     WO 9947519
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                        A1 19991011
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     NO 2000004583
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PRAI GB 1998-5581
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                              19980316
     GB 1998-13054
                        Α
                              19980617
     GB 1998-17115
                        Α
                              19980806
     WO 1999-GB793
                        W
                              19990316
     Pure, solvent-free, for example cryst., paroxetine free base is prepd.
AΒ
and
     used in therapy to treat depression. Cryst. paroxetine free base was
     prepd. by addn. of Et3N to paroxetine-HCl.
RE.CNT 3
RE
(1) Beecham Group PLC; EP 0223403 A 1987 CAPLUS
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<sup>(2)</sup> Christensen, J; US 4007196 A 1977 CAPLUS

## (3) Smithkline Beecham PLC; WO 9624595 A 1996 CAPLUS ANSWER 9 OF 11 CAPLUS COPYRIGHT 2001 ACS L51999:7993 CAPLUS AN DN 130:71568 Preparation of 4-phenylpiperidine compounds for pharmaceuticals TI Benneker, Franciscus Bernardus Gemma; Van Dalen, Frans; Lemmens, Jacobus IN Maria; Peters, Theodorus Hendricus Antonium; Picha, Frantisek Synthon B.V., Neth. PA PCT Int. Appl., 32 pp. SO CODEN: PIXXD2 Patent DT English LΑ FAN.CNT 1 APPLICATION NO. PATENT NO. KIND DATE DATE \_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_ WO 1997-NL328 19970610 A1 19981217 PΙ WO 9856787 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG AU 1997-31080 19970610 Α1 19981230 AU 9731080 19990223 US 1997-872023 19970610 US 5874447 Α EP 1997-926276 EP 994872 Α1 20000426 19970610 EP 994872 В1 20010425 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LV, FI, RO 20000614 CN 1997-182237 19970610 CN 1256692 A 20000718 BR 1997-14787 19970610 BR 9714787 Α DE 29724281 U1 20000914 DE 1997-29724281 19970610 EP 1078925 A1 20010228 EP 2000-203910 19970610 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LV, FI, RO 20000209 NO 1999-5455 19991108 NO 9905455 Α

19970610

19970610

Α

Α

Ι

PRAI EP 1997-926276

OS

GΙ

WO 1997-NL328

MARPAT 130:71568

The invention relates to 4-phenylpiperidine compds. and their salts (I, R = C1-4 alkyl or alkynyl or a Ph group substituted by C1-4 alkyl, alkylthio, alkoxy, halogen, nitro, acylamino, methylsulfonyl or methylenedioxy, or tetrahydronaphthyl; R1 = H, C1-4 trifluoroalkyl, alkyl or alkynyl; X = H, C1-4 alkyl, alkoxy, trifluoroalkyl, hydroxy, halogen, methylthio or aralkoxy and R2 = C1-10 alkyl, Ph group optionally substituted by 1 or more of the following groups: a C1-10 alkyl, halo, nitro, OH, and/or alkoxy). Thus, paroxetine maleate was obtained in 85% yield from paroxetine methanesulfonate by treating an aq. soln. of the latter with maleic acid, and drying the resulting crystals of the maleate.

## RE.CNT 6

RE

- (1) AS Ferrosan; EP 0152273 A 1985 CAPLUS
- (2) AS Ferrosan; EP 0269303 A 1988 CAPLUS
- (3) Beecham Group Plc; EP 0190496 A 1986 CAPLUS
- (4) Beecham Group Plc; EP 0223403 A 1987 CAPLUS
- (5) Buxton, P; INT J PHARM (IJPHDE, 03785173);88 V42(1-3), P135 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L5 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2001 ACS
- AN 1998:13682 CAPLUS
- DN 128:75308
- TI Preparation of piperidine derivative as intermediates for the preparation of paroxetine
- IN Sugi, Kiyoshi; Itaya, Nobushige; Katsura, Tadashi; Igi, Masami; Yamazaki, Shigeya; Ishibashi, Taro; Yamaoka, Teiji; Kawada, Yoshihiro; Tagami,

## Yayoi

- PA Sumika Fine Chemicals Co., Ltd., Japan
- SO Eur. Pat. Appl., 37 pp.

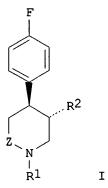
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

FAM.	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
ΡI	EP 812827	A1	19971217		EP 1997-303647	19970529
	R: BE, CH,	DE, ES	, FR, GB,	IT,	LI, NL, SE	
	JP 10291975	A2	19981104		JP 1997-145833	19970519
	US 5948914	Α	19990907		US 1998-53653	19980402
PRAI	JP 1996-175893		19960613			
	JP 1996-294585		19961015			
	JP 1996-303838		19961029			
	JP 1996-326177		19961120			
	JP 1997-50980		19970218			
	US 1997-871948		19970610			
OS GI	MARPAT 128:7530	8				



AB The title compds. (I; R1 = H, benzyloxycarbonyl, tert-BuOCO; R2 = HOCH2, alkylsulfonyloxymethyl, phenylsulfonyloxymethyl group which may have Me group at the 4-position, etc.; Z = CH2, CO) are prepd. I can be used as intermediates for pharmaceuticals such as paroxetine which is an useful

as antidepressants (no data). Thus, (.+-.)-trans-4-(4-fluorophenyl)-5-methoxycarbonylpiperidin-2-one (prepn. given) was treated with NaOH to give 87.5% (.+-.)-trans-5-carboxy-4-(4-fluorophenyl)piperidin-2-one.

L5 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2001 ACS

AN 1992:544046 CAPLUS

DN 117:144046

TI Role of essential sulfhydryl groups in drug interactions at the neuronal 5-HT transporter. Differences between amphetamines and 5-HT uptake inhibitors

AU Wolf, William A.; Kuhn, Donald M.

CS Lafayette Clin., Detroit, MI, 48207, USA

SO J. Biol. Chem. (1992), 267(29), 20820-5 CODEN: JBCHA3; ISSN: 0021-9258

DT Journal

LA English

AB The sulfhydryl-selective alkylating agent, N-ethylmaleimide (NEM), has been used as a tool to discern whether different binding domains exist on the neuronal serotonin (5-HT) transporter for 5-HT and 5-HT uptake inhibitors. However, relatively high concns. of NEM and long incubation times have been required for inactivation of the transporter-binding

which raises the possibility that NEM is reacting with other nucleophilic groups. In the present work, the reactivity and essential nature of sulfhydryl groups assocd. with substrate/inhibitor binding to the neuronal

5-HT transporter were assessed. [3H]Paroxetine, a potent and selective 5-HT uptake inhibitor, was used to label the 5-HT transporter. The effects of a relatively wide range of sulfhydryl reagents on [3H] paroxetine binding in digitonin-solubilized prepns. of rat brain neuronal membranes and the relative abilities of different classes of drugs to protect against NEM-induced inactivation of [3H] paroxetine binding were studied. Digitonin-solubilized prepns. were more sensitive than membrane prepns. to the inactivating effects of NEM. The pK.alpha. of the reactive group was estd. to be 6.17, in the range expected for a reactive sulfhydryl. Sulfhydryls essential to ligand

binding reacted preferentially with hydrophobic compds.

(p-hydroxymercuribenzoate = dithiobisnitrobenzoate > Me methanethiosulfonate > N-phenylmaleimide > NEM) and were unreactive toward hydrophilic reagents such as iodoacetate and iodoacetamide. 5-HT, 5-HT uptake inhibitors, and cocaine protected the digitonin-solubilized transporter from NEM-induced inactivation, whereas the amphetamine-related releasing agents p-chloroamphetamine and fenfluramine were ineffective. The observation that the binding of some, but not all, ligands requires reduced sulfhydryl groups, suggests that differential mechanisms and/or different binding domains do exist for agents which interact at the neuronal 5-HT transporter.